

United States Environmental Protection Agency
 Region 10
 1200 Sixth Avenue
 Seattle, Washington 98101

Authorization to Discharge under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et seq., as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

United States Department of Defense Department of Navy

is authorized to discharge from the **Puget Sound Naval Shipyard**, at the following locations:

<u>Outfall</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Type of Wastewater</u>
018A	47° 33' 35"	122° 38' 11"	Dry dock 1 - 5
018B	47° 33' 36"	122° 38' 10"	Dry dock 1 - 5
096	47° 33' 37"	122° 37' 56"	Dry dock 1 - 5
AAA	???	???	Dry dock 1 - 5
BBB	???	???	Dry dock 1 - 5
019	47° 33' 12"	122° 38' 30"	Dry dock 6
021	47° 33' 06"	122° 39' 09"	Treated effluent steam generation plant

Stormwater Outfalls – See Appendix A

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective *insert date*

This permit and the authorization to discharge shall expire at midnight, *insert date*

The permittee shall reapply for a permit reissuance on or before *insert date*, 180 days before the expiration of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this day of

Michael F. Gearheard, Director
Office of Water and Watersheds

Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

<<Exact Dates will be included in the table for the issued permit>>

<u>Item</u>	<u>Due Date</u>
1. Discharge Monitoring Reports (DMR)	DMRs are due monthly and must be postmarked on or before 15 th day of the following month. (See Part III.B.)
2. NPDES Application Renewal	The application must be submitted at least 180 days before the expiration date of the permit. (See Part V.B.)
3. Surface Water Monitoring Report	The Report must be submitted with the next permit application. (See Part I.G)
4. Compliance Schedule	Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date (see Part III.J)
5. Twenty-Four Hour Notice of Noncompliance Reporting	The permittee must report certain occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances. (See III.G and Footnote 1, on <i>Table 1: Dry Docks 1 – 5 (Outfalls 018A, 018B, 096, AAA, and BBB) Effluent Limits</i> , <i>Table 2: Dry Dock 6 (Outfall 019) Effluent Limits</i> , and <i>Table 5: Stormwater Monitoring Requirements and Final Effluent Limitations</i>)
6. Meeting Dry Dock Effluent Limits - Feasibility Study	Findings of the study must be submitted within one year of the effective date of the permit (see Part I.D).
7. Meeting Dry Dock Effluent Limits - Design Report	The report must be submitted within two years of the effective date of the permit (see Part I.D).
8. Meeting Dry Dock Effluent Limits - Construction Completion Report	The report must be submitted within three years of the effective date of the permit (see Part I.D).
9. Meeting Dry Dock Effluent Limits - Annual Report of Progress.	Annually. The first report is due within one year of the effective date of the permit (see Part I.D).

10. Contaminated Stormwater Collection and Treatment - Identification and Feasibility	Results of the study must be submitted within 12 months of the effective date of the permit (see Part I.E.2.b) and II.C.5).
11. Contaminated Stormwater Collection and Treatment - Design Report	The report must be submitted within three years of the effective date of the permit (see Part I.E.2.b) and II.C.5).
12. Contaminated Stormwater - Construction Completion Report	The report must be submitted within five years of the effective date of the permit (see Part I.E.2.b) and II.C.5).
13. Meeting Stormwater Effluent Limits - Annual Report of Progress.	Annually. The first report is due within one year of the effective date of the permit (see Part I.E.2.c)).
14. AKART Study	Completion of the AKART Study is required within 12 months of the effective date of the permit (see Part II.A).
15. AKART Implementation	The permittee must complete implementation of AKART within three years of the effective date of the permit (see Part II.A).
16. Storm Water Pollution Prevention Plan (SWPPP)	Written notification that the SWPPP has been updated to meet all the objectives and specific requirements in this permit within 18 months of the effective date of the permit (see Part II.B.2)
17. Elimination of Unauthorized Discharges and Cross Connections	Within 2 years of the effective date of the permit, the permittee will complete inspection of the storm sewer system and certify that all unauthorized discharges and cross connections have been eliminated (see Part II.B.4.c)(4)).
18. Quality Assurance Plan (QAP)	The permittee must provide EPA and Ecology with written notification that the Plan has been developed and implemented within 180 days after the effective date of the final permit (see II.D). The Plan must be kept on site and made available to EPA and Ecology upon request.
19. Effluent Mixing Study – Plan of Study	Plan of Study is required within 12 months of the effective date of the permit (see Part II.E).
20. Effluent Mixing Study – Effluent Mixing Report	Report is due within 30 months of the effective date of the permit (see Part II.E).

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I. Limitations and Monitoring Requirements

A. Prohibited Discharges

The following discharges are prohibited under this permit: Pressure washwater, hydroblast water, washdown water, bilge water, sanitary wastes, condensate from steam-cleaning and from powering of equipment, freeze protection water that contacts the dry dock floor, contaminated storm water that exceeds water quality standards, hydraulic fluid, oily wastes, gray water, solvents, ballast water while a ship is in the dry dock, and cooling tower blowdown at the steam generation plant.

B. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls specified herein to Sinclair Inlet, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process.

Discharges of the following wastestreams are authorized under this permit:

1. Dry Dock Outfalls (018A, 018B, 096, AAA, BBB, and 019): stormwater, uncontaminated hydrostatic relief water, ship non-contact cooling water, non-contact cooling water from equipment, steam condensate, freeze protection water (that does not contact the dry dock floor), eye wash stations, water piping leaks, fire-watch water, caisson leakage, seawater fire main, and uncontaminated foundation drains.
2. Outfall 021: Process wastewater from the steam generation plant
3. Stormwater outfalls (see Appendix A): Stormwater and miscellaneous non-stormwater discharges including discharges from fire-fighting activities, fire hydrant flushings, water line flushings, uncontaminated air conditioning and uncontaminated compressor condensate.

C. Effluent Limitations and Monitoring

1. Dry Dock Outfalls 018A, 018B, 096, AAA, BBB, and 019 (Floor Drainage, Stormwater, Groundwater Infiltration, Ship Cooling Water)
 - a) The permittee must limit and monitor discharges from the outfalls as specified in *Table 1: Dry Docks 1 – 5 (Outfalls 018A, 018B, 096, AAA, and BBB) Effluent Limits*, *Table 2: Dry Dock 6 (Outfall 019) Effluent Limits*, and *Table 3: Dry Dock Outfalls Monitoring Requirements (Outfalls 018A, 018B, 096, AAA, BBB and 019)*.

- b) All figures represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.
- c) Final dry dock effluent limits are effective three years from the effective date of the permit in accordance with the conditions of the compliance schedule in Part I.D.
- d) The permittee must record the contributing wastestreams at time of sample, i.e. note whether the sample includes ship cooling water or dry dock floor drainage in addition to groundwater infiltration.

Table 1: Dry Docks 1 – 5 (Outfalls 018A, 018B, 096, AAA, and BBB) Effluent Limits				
Parameter	Interim Effluent Limits (Beginning on the Effective Date of the Permit Through <<Exact Date to Be Added<<)		Final Effluent Limits (Beginning on <<Exact Date to Be Added>>)	
	Maximum Daily	Average Monthly	Maximum Daily	Average Monthly
Copper, total recoverable ¹	33 µg/L	19 µg/L	5.8 µg/L	2.4 µg/L
	0.77 lb/day	0.44 lb/day	0.34 lb/day	0.14 lb/day
Lead, total recoverable ¹	81 µg/L	40 µg/L	14 µg/L	7 µg/L
	4.8 lb/day	2.4 lb/day	0.83 lb/day	0.42 lb/day
Mercury, total recoverable ¹	2.2 µg/L	1.1 µg/L	0.048 µg/L	0.024 µg/L
	0.13 lb/day	0.06 lb/day	0.003 lb/day	0.001 lb/day
Zinc, total recoverable ¹	95 µg/L	47 µg/L	95 µg/L	47 µg/L
	5.6 lb/day	2.8 lb/day	5.6 lb/day	2.8 lb/day
Arsenic, total recoverable ¹	16 µg/L	8 µg/L	0.23 µg/L	0.16 µg/L
	0.95 lb/day	0.48 lb/day	0.014 lb/day	0.009 lb/day
Temperature	16.0° C	----	16.0° C	----
Oil and Grease	15 mg/L	10 mg/L	15 mg/L	10 mg/L
Oily Sheen	No visible sheen	----	No visible sheen	----
Total Residual Chlorine ¹	12 µg/L	6.1 µg/L	12 µg/L	6.1 µg/L
	0.71 lb/day	0.36 lb/day	0.71 lb/day	0.36 lb/day
Turbidity	5 NTU above background ²	----	5 NTU above background ²	----
Footnotes: 1 - Reporting for copper, lead, mercury, zinc, arsenic and chlorine is required within 24 hours of a maximum daily limit violation. See Part III.G. 2 - If background turbidity is greater than 50 NTU, the turbidity shall not exceed 10 percent over background.				

Table 2: Dry Dock 6 (Outfall 019) Effluent Limits				
Parameter	Interim Effluent Limits (Beginning on the Effective Date of the Permit Through <<Exact Date to Be Added>>)		Final Effluent Limits (Beginning on <<Exact Date to Be Added>>)	
	Maximum Daily	Average Monthly	Maximum Daily	Average Monthly
Copper, total recoverable ¹	33 µg/L	19 µg/L	5.8 µg/L	2.5 µg/L
	1.44 lb/day	0.83 lb/day	0.66 lb/day	0.28 lb/day
Lead, total recoverable ¹	19 µg/L	9 µg/L	14 µg/L	7 µg/L
	2.2 lb/day	1.1 lb/day	1.59 lb/day	0.80 lb/day
Mercury, total recoverable ¹	1.9 µg/L	0.9 µg/L	0.048 µg/L	0.024 µg/L
	0.22 lb/day	0.11 lb/day	0.005 lb/day	0.003 lb/day
Zinc, total recoverable ¹	95 µg/L	47 µg/L	95 µg/L	47 µg/L
	10.8 lb/day	5.4 lb/day	10.8 lb/day	5.4 lb/day
Arsenic, total recoverable ¹	9 µg/L	4 µg/L	0.23 µg/L	0.16 µg/L
	0.97 lb/day	0.48 lb/day	0.026 lb/day	0.018 lb/day
Temperature	16.0° C	----	16.0° C	----
Oil and Grease	15 mg/L	10 mg/L	15 mg/L	10 mg/L
Oily Sheen	No visible sheen	----	No visible sheen	----
Total Residual Chlorine ¹	12 µg/L	6.1 µg/L	12 µg/L	6.1 µg/L
	1.37 lb/day	0.69 lb/day	1.37 lb/day	0.69 lb/day
Turbidity	5 NTU above background ²	----	5 NTU above background ²	----
Footnotes:				
1 - Reporting for copper, lead, mercury, zinc, arsenic and chlorine is required within 24 hours of a maximum daily limit violation. See Part III.G				
2 - If background turbidity is greater than 50 NTU, the turbidity shall not exceed 10 percent over background.				

Table 3: Dry Dock Outfalls Monitoring Requirements (Outfalls 018A, 018B, 096, AAA, BBB and 019)			
Parameter	Units	Sample Frequency	Sample Type
Copper, total recoverable	µg/L	Weekly	24-hour Composite
Lead, total recoverable	µg/L	Weekly	24-hour Composite
Mercury, total recoverable	µg/L	Weekly	Grab
Zinc, total recoverable	µg/L	Weekly	24-hour Composite
Arsenic, total recoverable	µg/L	Weekly	24-hour Composite
Oil and Grease	mg/L	Monthly	Grab

Table 3: Dry Dock Outfalls Monitoring Requirements (Outfalls 018A, 018B, 096, AAA, BBB and 019)			
Parameter	Units	Sample Frequency	Sample Type
Oily Sheen	---	Monthly	Visual Observation
Total Residual Chlorine ²	µg/L	Weekly	Grab
Temperature	°C	Daily	Grab
Outfall Flow	gpd	Continuous	Recording
Priority Pollutants	µg/L	Annually	24-hour Composite
Turbidity	NTU	Monthly	Grab
Tributyltin	µg/L	Monthly	24-hour Composite
Acute Whole Effluent Toxicity ¹	TU _a	Quarterly for One Year	24-hour Composite
Chronic Whole Effluent Toxicity ¹	TU _c	Quarterly for One Year	24-hour Composite
Footnotes:			
1. See Part I.F for whole effluent toxicity testing requirements.			
2. Monitoring for chlorine is only required when the dry dock is discharging ship cooling water.			

2. Dry Dock Floor Drainage and Stormwater from Dry Dock Floor

- a) The permittee must monitor and limit the floor drainage and stormwater from the dry docks as specified in *Table 4: Dry Dock Floor Drainage (Process Water Control System) Monitoring Requirements*.
- b) Samples must represent only the discharge from the dry dock floor, i.e. prior to commingling with other wastewater discharges including groundwater (hydrostatic relief water) and cooling water from ships.
- c) Grab samples must be taken within the first hour after stormwater discharge begins. Time-proportionate samples are started within the first 30 minutes after stormwater discharge begins and are taken over a two hour period.
- d) Information on the sampled storm event must be documented, and must include date and duration of the storm event(s) sampled, rainfall measurements or estimates of the event that generated runoff, the duration between the storm event and the previous event that produced measurable runoff (greater than 0.1 inch), and an estimate of the total volume of the discharge sampled.
- e) The storm event sampled must be at least 0.1 inches of rain in a 24-hour period. The storm event sampled must be preceded by at least 24 hours of no greater than trace precipitation.

- f) Once a dry dock is placed out of service, if no activities are occurring in the dry dock and the dry dock is completely empty, only one monitoring event is required until the dry dock is placed back in use.

Table 4: Dry Dock Floor Drainage (Process Water Control System) Monitoring Requirements			
Parameter	Units	Sample Frequency	Sample Type
Flow	gpd	Continuous	Recording
Copper, total recoverable	µg/L	Weekly	2-hour Composite
Lead, total recoverable	µg/L	Weekly	2-hour Composite
Mercury, total recoverable	µg/L	Weekly	Grab
Zinc, total recoverable	µg/L	Weekly	2-hour Composite
Arsenic, total recoverable	µg/L	Weekly	2-hour Composite
Oil and Grease	mg/L	Weekly	Grab
Turbidity	NTU	Weekly	Grab
Total Suspended Solids (TSS)	mg/L	Weekly	2-hour Composite

3. Non-Dry Dock Stormwater (Appendix A outfalls)

- a) The permittee must monitor and limit stormwater in accordance with this part. The permittee must monitor the following outfalls: 001, 002, 003, 006, 008, 010, 012, 013, 014, 015, 022, 023, 025, 028, 030, 040, 052, 089, and 095.
- b) Stormwater effluent limits are effective five years from the effective date of the permit in accordance with the conditions of the compliance schedule in Part I.E.
- c) The sample type must be grab or time-proportionate sample. Grab samples must be taken within the first hour after discharge begins. Time-proportionate composite samples must be started within the first 30 minutes after discharge begins and are taken over a two hour period. All samples must be taken at the sampling point specified in the permit, or as close to the point of discharge as reasonably practical.
- d) Information on the sampled storm event must be documented, and must include date and duration of the storm event(s) sampled, rainfall measurements or estimates of the event that generated runoff, the duration between the storm event and the previous event that produced measurable runoff (greater than 0.1 inch), and an estimate of the total volume of the discharge sampled.
- e) The storm event sampled must be at least 0.1 inches of rain in a 24-hour period. The storm event sampled must be preceded by at least 24 hours of no greater than trace

precipitation.

- f) If the permittee is unable to sample according to any of these criteria, the permittee must submit an explanation with the DMR that includes the reason why the sampling was not possible.

Table 5: Stormwater Monitoring Requirements and Final Effluent Limitations			
Parameter	Final Maximum Daily Effluent Limit	Sample Frequency	Sample Type
Copper, total recoverable ¹	5.8 µg/L	Quarterly	Grab/Composite. See Part I.C.3.c).
Lead, total recoverable ¹	221 µg/L	Quarterly	Grab/Composite. See Part I.C.3.c).
Mercury, total recoverable ¹	2.1 µg/L	Quarterly	Grab
Zinc, total recoverable ¹	95 µg/L	Quarterly	Grab/Composite. See Part I.C.3.c).
Arsenic, total recoverable ¹	69 µg/L	Quarterly	Grab/Composite. See Part I.C.3.c).
Total Suspended Solids (TSS)	-----	Quarterly	Grab/Composite. See Part I.C.3.c).
Oil and Grease	-----	Quarterly	Grab
Oily Sheen	No oily sheen	Quarterly	Visual Observation
Turbidity	5 NTU above background ²	Quarterly	Grab/Composite. See Part I.C.3.c).
Fecal Coliform	-----	Quarterly	Grab
Footnotes:			
1 - Reporting for copper, lead, mercury, zinc, and arsenic is required within 24 hours of a maximum daily limit violation. See Part III.G.			
2 - If background turbidity is greater than 50 NTU, the turbidity shall not exceed 10 percent over background.			

4. Steam Generation Plant (Outfall 021)

The permittee must limit and monitor discharges from the outfall as specified in Table 6: *Steam Generation Plant Effluent Limits and Monitoring*.

Table 6: Steam Generation Plant Effluent Limits and Monitoring				
Parameter	Effluent Limits		Monitoring	
	Maximum Daily	Average Monthly	Frequency	Sample Type
Flow	----	----	Continuous	Recorded
Temperature	16.0° C	----	Continuous	Recorded
Oil and Grease	15 mg/L	10 mg/L	Daily	Grab
	10 lbs/day	7 lbs/day		
TSS	100 mg/L	30 mg/L	Three per week	24-hour composite
	68 lbs/day	21 lbs/day		
pH, su	Between 7.0 to 8.5		Daily	Grab
Priority Pollutants	----	----	Annually	24-hour Composite

5. Additional Effluent Limit and Monitoring Conditions

- a) The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.
- b) Minimum Levels. For all effluent monitoring, the permittee must use methods that can achieve a minimum level (ML) less than the effluent limitation.
- c) For purposes of reporting on the DMR for a single sample, if a value is less than the Method Detection Limit (MDL), the permittee must report “less than {numeric value of the MDL}” and if a value is less than the ML, the permittee must report “less than {numeric value of the ML}.”
- d) For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the permittee must report “less than {numeric value of the MDL}” and if the average value is less than the ML, the permittee must report “less than {numeric value of the ML}.” If a value is equal to or greater than the ML, the permittee must report and use the actual value. The resulting average value must be compared to the compliance level, the ML, in assessing compliance.

D. Dry Dock Effluent Treatment Schedule of Compliance

1. The permittee must achieve compliance with the final dry dock effluent limitations of *Table 1: Dry Docks 1 – 5 (Outfalls 018A, 018B, 096, AAA, and BBB) Effluent Limits* and *Table 2: Dry Dock 6 (Outfall 019) Effluent Limits* within three years of the effective date of the permit.
2. Until compliance with the effluent limits is achieved, at a minimum, the permittee must

complete the tasks and reports:

a) Feasibility study

- (1) Within one year of the effective date of the permit, the permittee must investigate the feasibility of measures to meet the effluent limits for 018A, 018B, 096, AAA, BBB, and 019. At a minimum, the investigation must include collecting all waters that contact the dry dock floor including dry dock floor drainage and stormwater and either sending the flows to the sanitary sewer system, providing on-site treatment, or a combination thereof.
- (2) Readily implementable measures must be designed and constructed as soon as possible.
- (3) Deliverable: The permittee must submit a report of the findings on the feasibility of measures within one year of the effective date of the permit.

b) Design

- (1) Within two years of the effective date of the permit, the permittee must design measures to achieve the effluent limits for outfalls 0018A, 018B, 096, AAA, BBB, and 019.
- (2) Deliverable: The permittee must submit a completed design report within two years of the effective date of the permit.

c) Construction

- (1) Within three years of the effective date of the permit, the permittee must complete construction and operate the dry docks in order to achieve the final effluent limits.
- (2) Deliverable: The permittee must submit a construction completion report within three years of the effective date of the permit.

d) The permittee must submit an Annual Report of Progress which outlines the progress made towards reaching the compliance date for the effluent limitations listed in *Table 1: Dry Docks 1 – 5 (Outfalls 018A, 018B, 096, AAA, and BBB) Effluent Limits* and *Table 2: Dry Dock 6 (Outfall 019) Effluent Limits*. The first report is due within one year of the effective date of the permit and annually thereafter, until compliance with the effluent limits is achieved. See also Part III.J., “Compliance Schedules”. At a minimum, the annual report must include:

- (1) An assessment of the previous year of dry dock floor drainage data and dry dock outfall data and comparison to the benchmark values (see *Table 7: Benchmark Levels for Stormwater Monitoring and Dry Dock Floor Drainage*) and final

effluent limitations (see *Table 1: Dry Docks 1 – 5 (Outfalls 018A, 018B, 096, AAA, and BBB) Effluent Limits* and *Table 2: Dry Dock 6 (Outfall 019) Effluent Limits*).

- (2) A report on progress made towards meeting the final effluent limitations, including the applicable deliverables required under paragraph I.D.2.
- (3) Further actions and milestones targeted for the upcoming year.

e) Interim Limits/Measures

- (1) The permittee is required to implement all Technology-Based Stormwater Controls specified under Part II.C.2.
- (2) The permittee must minimize the discharge of dry dock floor drainage and storm water through maximizing discharge to the sanitary sewer and/or discharge to temporary storage and treatment.

Table 7: Benchmark Levels for Stormwater Monitoring and Dry Dock Floor Drainage	
Parameter	Benchmark Levels
Copper, total recoverable	20 µg/L
Lead, total recoverable	81.6 µg/L
Zinc, total recoverable	115 µg/L
pH (std units)	6 – 9
Total Suspended Solids (TSS)	100 mg/L
Oil and Grease	15 mg/L
Turbidity	25 NTU

E. Stormwater Compliance Schedule

1. The permittee must achieve compliance with the stormwater effluent limitations of *Table 5: Stormwater Monitoring Requirements and Final Effluent Limitations* within 5 years of the effective date of the permit.
2. Until compliance with the effluent limits is achieved, at a minimum, the permittee must complete the following tasks:
 - a) The permittee is required to fully implement all Technology-Based Stormwater Controls specified under Part II.C.2.

b) Contaminated Stormwater Collection and Treatment

- (1) Within 12 months of the effective date of the permit, the permittee must identify each high-risk area at the facility (including the piers) where the stormwater has the potential to cause or contribute to an exceedance of water quality standards in the receiving waters despite implementation of mandatory BMPs in Part II.C. (See Part II.C.5.a). The permittee must investigate the feasibility of collecting all waters from the areas and either sending the flows to the sanitary sewer system, providing on-site treatment, or a combination thereof. Deliverable: The permittee must submit a report of the identification of the contaminated storm water areas and the findings on the feasibility of collection/treatment within 12 months of the effective date of the permit.
 - (2) Within three years of the effective date of the permit, the permittee must design measures to collect and treat the contaminated stormwater from the high risk areas (See Part II.C.5.b). Deliverable: The permittee must submit a completed design report;
 - (3) Within 5 years of the effective date of the permit, the permittee must complete construction on the contaminated stormwater collection and treatment system (See Part II.C.5.c). Deliverable: The permittee must submit a construction completion report.
- c) The permittee must submit an Annual Report of Progress which outlines the progress made towards reaching the compliance date for the stormwater effluent limitations listed in *Table 5: Stormwater Monitoring Requirements and Final Effluent Limitations*. The first report is due within one year of the effective date of the permit and annually thereafter, until compliance with the effluent limits is achieved. See also Part III.J., “Compliance Schedules”. At a minimum, the annual report must include:
- (1) An assessment of the previous year of data and comparison to the benchmark values and final effluent limits. The benchmark values are presented in *Table 7: Benchmark Levels for Stormwater Monitoring and Dry Dock Floor Drainage*. The final stormwater effluent limits are presented in *Table 5: Stormwater Monitoring Requirements and Final Effluent Limitations*.
 - (2) A report on progress made towards meeting the effluent limitations, including the applicable deliverables required under paragraph I.D.2.
 - (3) Further actions and milestones targeted for the upcoming year.

F. Whole Effluent Toxicity Testing Requirements

1. The permittee must conduct toxicity tests on effluent samples from the dry dock outfalls (see *Table 3: Dry Dock Outfalls Monitoring Requirements (Outfalls 018A, 018B, 096,*

AAA, BBB and 019)).

2. The permittee must conduct quarterly toxicity tests on 24-hour composite effluent samples. A split of each sample collected must be analyzed for the chemical and physical parameters required in Part I.C. When the timing of sample collection coincides with that of the sampling required in Part I.C, analysis of the split sample will fulfill the requirements of Part I.C as well.
3. Acute Toxicity Species and Test Methods.
 - a) The permittee must conduct 96-hour static renewal toxicity tests with the following invertebrate species:
 - (1) The West Coast mysid, *Holmesimysis costata*;
 - (2) The mysid, *Americamysis bahia* (Acute Toxicity Test Method 2007.0).
 - b) The short-term test methods for estimating the acute toxicity of NPDES effluents are found in the fifth edition of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002; Table IA, 40 CFR Part 136).
4. Chronic Toxicity Species and Test Methods.
 - a) The permittee must conduct a static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0); and a toxicity test with the following invertebrate species:
 - (1) Static renewal toxicity test with the Pacific mysid, *Holmesimysis costata* (Survival and Growth Test Method 1007.01);
 - (2) Static non-renewal toxicity test with the sand dollar, *Dentraster excentricus* (Embryo-larval Development Test Method);
 - b) The short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the first edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995).
5. Quality Assurance.
 - a) The toxicity testing on each organism must include a series of five test dilutions and a control. The dilution series must include 6.25, 12.5, 25, 50, and 100% effluent.
 - b) Quality assurance measures, instructions, and other recommendations and

requirements for acute tests are found in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002; Table IA, 40 CFR Part 136). Quality assurance measures, instructions, and other recommendations and requirements for chronic tests are found in the first edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995).

- c) Effluent dilution water and control water for acute tests should be prepared and used as specified in the test methods manual *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002). Effluent dilution water and control water for chronic tests should be prepared and used as specified in the test methods manual *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995).
- d) If the dilution water is different from test organism culture water, then a second control using culture water must also be used. If the use of artificial sea salts is considered provisional in the test method, then artificial sea salts must not be used to increase the salinity of the effluent sample prior to toxicity testing without written approval by the EPA.
- e) If organisms are not cultured in-house, then concurrent testing with a reference toxicant must be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).
- f) If either the reference toxicant or effluent toxicity tests do not meet all test acceptability criteria in the test methods manual, then the permittee must resample and retest within 14 days.
- g) With-in test variability of individual toxicity tests should be reviewed for acceptability and variability criteria (upper and lower PMSD bounds) should be applied, as directed under Section 12.2.8 - Test Variability of the test methods manual, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*. Under Section 12.2.8, the calculated percent minimum significant difference (PMSD) for both reference toxicant test and effluent toxicity test results must be compared with the upper and lower PMSD bounds variability criteria specified in Table 3-6 - Range of Relative Variability for Endpoints of Promulgated WET Methods, Defined by the 10th and 90th Percentiles from the Data Set of Reference Toxicant Tests, taken from Understanding and Accounting for Method Variability in *Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program* (EPA/833-R-00/003, 2000), following the review criteria in Paragraphs 12.2.8.2.1 and 12.2.8.2 of the test methods manual. Based on this review, only accepted effluent toxicity test results shall be reported. If excessive within-test variability invalidates a test result, then the

permittee must resample and retest within 14 days.

- h) Because this permit requires sublethal hypothesis testing endpoints from test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995), with-in test variability must be reviewed for acceptability and a variability criterion (upper PMSD bound) must be applied, as directed under each test method. Based on this review, only accepted effluent toxicity test results shall be reported. If excessive within-test variability invalidates a test result, then the permittee must resample and retest within 14 days.
- 6. Reporting of Toxicity Monitoring Results. A full laboratory report for all toxicity testing shall be submitted as an attachment to the DMR for the month in which the toxicity test was conducted and shall also include for acute testing: LC50; $TU_a = 100/LC50$; NOAEC; $TU_a = 100/NOAEC$ and for chronic testing: the toxicity test results in NOEC; $TU_c = 100/NOEC$; EC25 (or IC25); and $TU_c = 100/EC25$ (or IC25), reported according to the test methods manual chapter on report preparation and test review; the dates of sample collection and initiation of each toxicity test; and all results for effluent parameters monitored concurrently with the toxicity test(s).
 - 7. Permit Reopener for Toxicity. In accordance with 40 CFR Parts 122 and 124, this permit may be modified to include effluent limitations or permit conditions to address acute or chronic toxicity in the effluent or receiving waterbody, as a result of the discharge; or to implement new, revised, or newly interpreted water quality standards applicable to acute or chronic toxicity.

G. Surface Water Monitoring

- 1. The permittee must conduct surface water monitoring. Surface water monitoring must start 180 days after the effective date of the permit and continue.
- 2. Working with Ecology, the permittee must establish two monitoring stations in Sinclair Inlet.
- 3. The permittee must seek written approval of the surface water monitoring stations from Ecology.
- 4. A failure to obtain Ecology approval of surface water monitoring stations does not relieve the permittee of the surface water monitoring requirements of this permit.
- 5. All ambient samples must be grab samples.
- 6. Samples must be analyzed for the parameters listed in *Table 8: Surface Water Monitoring Requirements*.

Table 8: Surface Water Monitoring Requirements		
Parameter	Units	Sampling Frequency
Copper, dissolved	µg/L	Once per quarter
Lead, dissolved	µg/L	Once per quarter
Mercury, total	µg/L	Once per quarter
Zinc, dissolved	µg/L	Once per quarter
Arsenic, dissolved	µg/L	Once per quarter
Oil and Grease	mg/L	Once per quarter
Total Suspended Solids (TSS)	mg/L	Once per quarter
Turbidity	NTU	Monthly
Salinity	salinity units	Once per quarter
Temperature	°C	Monthly – July through October

7. Quality assurance/quality control plans for all the monitoring must be documented in the Quality Assurance Plan required under Part II.D.
8. Surface water monitoring results must be submitted to EPA and Ecology with the application for renewal of this permit (see Part V.B). At a minimum, the report must include the following:
 - a) Dates of sample collection and analyses.
 - b) Results of sample analysis.
 - c) Relevant quality assurance/quality control (QA/QC) information.

II. Special Conditions

A. All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment (AKART)

1. Within 12 months of the effective date of the permit, the permittee must submit an AKART analysis to EPA and Ecology. The PSNS is required to fully apply AKART prior to being authorized a mixing zone by the State of Washington.
2. Within three years of the effective date of the permit, the permittee must complete implementation of AKART.

B. Stormwater Pollution Prevention Plan (SWPPP)

1. The permittee must have a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be consistent with permit requirements, fully implemented as directed by permit conditions, and updated as necessary to maintain compliance with permit conditions.
2. The existing SWPPP may be modified for compliance with this section. The permittee must submit written notice to EPA that the SWPPP has been updated to meet all the objectives and specific requirements in this permit within 18 months of the effective date of the permit. The SWPPP must contain all of the elements described below.
3. The permittee is responsible for assuring compliance of the SWPPP by all operators and contractors on the site.
4. Contents of the SWPPP.

- a) Pollution Prevention Team.

The permittee must identify the staff members (by name or title) that comprise the facility's stormwater pollution prevention team. The pollution prevention team is responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions for deficiencies. Specific responsibilities of each staff individual on the team must be identified and listed in the SWPPP. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of applicable portions of this permit and the SWPPP.

- b) Site Description.

The SWPPP must include the following:

- (1) Activities at the Facility. Provide a description of the nature of the industrial activities at the facility.
- (2) Site map. Provide a map showing:
 - (a) the size of the property in acres;
 - (b) the location and extent of significant structures and impervious surfaces;
 - (c) directions of stormwater flow (use arrows);
 - (d) locations of all existing structural control measures;
 - (e) locations of all receiving waters in the immediate vicinity of the facility;
 - (f) locations of all stormwater conveyances including ditches, pipes and swales;
 - (g) locations of potential pollutant sources identified under Part II.B.4.c);

- (h) locations where significant spills or leaks identified under Part II.B.4.c)(3) have occurred;
- (i) locations of all stormwater inlets and outfalls, and an approximate outline of the areas draining to each outfall;
- (j) municipal storm sewer systems, where the stormwater discharges to them;
- (k) locations and descriptions of all non-stormwater discharges identified under Part I.B.3;
- (l) locations of the following activities where such activities are exposed to precipitation: fueling stations; vehicle and equipment maintenance or repair; vehicle and equipment cleaning areas; vessel maintenance or repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading/unloading areas; locations used for the treatment, storage or disposal of wastes; liquid storage tanks; liquid storage areas; material storage areas; processing areas; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; transfer areas for substances in bulk; and machinery;
- (m) locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants, and
- (n) Other permits. A list of other NPDES permits and any other environmental permits issued to the facility.

c) Summary of Potential Pollutant Sources.

The permittee must identify each area at the facility where industrial materials or activities are exposed to stormwater and from which allowable non-stormwater discharges are released. Industrial materials or activities include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading, and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product and waste product. Include the following sources and activities that have potential pollutants associated with them (if applicable): outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting). For each area identified, the description must include:

- (1) Activities in the area. A list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).
- (2) Pollutants. A list of the associated pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) for each identified

activity. The pollutant list must include all significant materials that have been handled, treated, stored, or disposed, and that have been exposed to stormwater in the 3 years prior to amendment of the SWPPP as well as any additional significant materials that the facility plans to use during the life of this permit.

- (3) Spills and Leaks. The permittee must identify where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s). The permittee must document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the 3 years prior to the date the permittee amended the SWPPP.

Significant spills and leaks include but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA §311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

- (4) Certification of the Evaluation/Elimination of Unauthorized Discharges. Within 2 years of the effective date of the permit, the permittee must submit a certification that all storm sewers have been inspected for the presence of non-stormwater and sanitary sewer cross connections, and that all unauthorized discharges and sanitary sewer cross connections have been eliminated. The certification must be signed in accordance with Section V.E Signatory Requirements and must include:

- (a) The date of the inspection;
- (b) A description of the evaluation criteria or testing method used;
- (c) A list of the outfalls or onsite drainage points that were directly observed during the test or evaluation;
- (d) A description of the results of any test and/or evaluation for the presence of non-stormwater discharges, i.e. identification of unauthorized discharge(s) origin and composition; and
- (e) The action(s) taken to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, or a sink drain was re-routed to sanitary.

- (5) Allowable Non-Stormwater Discharges. Discharges of certain sources of non-stormwater are allowed under this permit (see Part I.B.3). For each allowable non-stormwater source (except flows from fire-fighting activities), the SWPPP must include:

- (a) The discharge location(s); and
- (b) Descriptions of appropriate control measures for each source.

- (c) If mist blown from cooling towers is one of the allowable non-stormwater discharges, the permittee must specifically evaluate the discharge for the presence of chemicals used in the cooling tower. Results of the evaluation must be kept onsite with the SWPPP.
- (d) Allowable non-stormwater discharges are subject to all of the provisions of this permit.

d) Description of Control Measures.

The permittee must identify and describe the control measures that the permittee has implemented at the site to comply with the limits set forth in Part I, address the pollutant sources identified in Part II.B.4.c), and address stormwater run-on that commingles with the discharges associated with industrial activity. The SWPPP must include sufficient detail to identify and describe the implementation of the mandatory control measures identified and described in Part II.C.2.

e) Monitoring and Inspection Procedures.

- (1) The permittee must document in the SWPPP the planned procedures for performing analytical monitoring as appropriate for the analytical monitoring for stormwater specified by this permit (see Parts I.C.2 and I.C.3). For each sample to be collected, the SWPPP must identify:
 - (a) Locations where samples are to be collected;
 - (b) Person(s) or positions of person(s) responsible for sample collection;
 - (c) Parameters to be sampled and frequency of sampling for each parameter;
 - (d) Any benchmarks, effluent limitations or other requirements applicable to discharges from each outfall; and
 - (e) Procedures for gathering storm event data.
 - (2) The permittee must document in the SWPPP the planned procedures for performing inspections as appropriate for the inspections specified in Part II.C.3. For each inspection to be performed, the SWPPP must identify:
 - (a) Locations where inspections are to be performed;
 - (b) Person(s) or positions of person(s) responsible for inspection;
 - (c) Frequency of inspection; and
 - (d) Procedures for gathering data and documenting findings.
 - (3) For each monitoring event or inspection to be performed, documentation (i.e., reporting and recordkeeping) must be consistent with Part III.
- f) Signature Requirements. The permittee must sign and date the SWPPP in accordance with Part V.E, including the date of signature. A signature and date is required for

any significant revisions to the plan.

5. SWPPP Documentation. The permittee must keep the following records on-site with the SWPPP to demonstrate the full compliance with the conditions of this permit:
 - a) Any correspondence exchanged between the permittee and EPA specific to the stormwater requirements of this permit.
 - b) Procedures used for spill prevention and response; and descriptions and dates of any incidences of spills, leaks, or other releases; the circumstances leading to the release and actions taken in response to the release; and measures to prevent the recurrence of such releases. Unauthorized releases and discharges are subject to the reporting requirements in Section III of this permit;
 - c) Information on training sessions and employees trained;
 - d) Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, the date(s) that control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules;
 - e) All reports, including the Routine Facility Inspection Reports (see Part II.C.3.a)), the Dry Dock Flooding Inspections (see Part II.C.3.b)) and the Comprehensive Site Inspection Reports (see Part II.C.3.c));
 - f) An accounting of and explanation of the length of time taken to modify control measures or implement additional control measures following the discovery of a deficiency or the need for modification (see Parts II.C.2.j) and II.C.4);
 - g) Findings and dates of the review of control measures and/or SWPPP document following any samplings results showing an exceedance of applicable limitations (see *Table 5: Stormwater Monitoring Requirements and Final Effluent Limitations*).
 - h) These records should be compiled and maintained alongside the SWPPP document thereby providing a consolidated record of documented stormwater requirements and implementation practices.
6. Required Modifications.
 - a) The permittee must modify the SWPPP whenever:
 - (1) Construction or a change in design, operation, or maintenance at the facility has a significant impact on the discharge, or potential for discharge, of pollutants from the facility;

- (2) The permittee's routine inspection, dry dock flooding inspection, comprehensive site inspection, or analytical monitoring determines deficiencies in the control measures; or
 - (3) An inspection or evaluation of the SWPPP by EPA or Ecology determines that modifications to the SWPPP are necessary.
- b) If any of the circumstances described above occur at the site, the permittee must address these changes or deficiencies to ensure compliance with the permit conditions and applicable limits. The SWPPP must be kept up-to-date with any of these changes. Changes to the SWPPP document must be made no later than 14 days from the date the permittee discovers or observes an event requiring a modification and must be signed and dated by an authorized representative in accordance with Part V.E. Consistent with Part II.C.4, if the permittee finds that any of these circumstances make it necessary to change the control measures to further reduce pollutants in the discharge, the permittee must do so before the next storm event if possible, or as soon as practicable following that storm event.

7. SWPPP Availability.

- a) The permittee must retain a copy of the current SWPPP required by this permit at the facility, and it must be immediately available to EPA at the time of an onsite inspection or upon request.
- b) The permittee must provide a copy of the SWPPP as soon as practicable to any member of the public who makes such a request in writing. Confidential Business Information (CBI) may not be withheld from regulatory agencies, but may be withheld from the public. All portions of the SWPPP not identified as CBI, pursuant to 40 CFR Part 2, must be provided to the public upon request.

C. Stormwater Controls, Inspections, and Evaluations

1. Selection, Design, and Installation Requirements.

- a) For all areas identified in the stormwater pollution prevention plan (SWPPP) as potential pollutant sources in Part II.B.4.c), the permittee must select, design, install, and implement the best available control measures economically achievable to minimize or eliminate pollutants in the stormwater discharge.
- b) The selection, design, installation, and implementation of these control measures must be in accordance with good engineering practices and manufacturers' specifications. The permittee must also take all reasonable steps to control or address the quality of discharges from the site that may not originate at the facility.

2. Technology-Based Stormwater Controls (BPT/BAT/BCT)

For all discharges of pollutants, either directly or indirectly to receiving waters, under this permit, the following controls constitute best available control technology economically achievable (BAT), best conventional control technology (BCT), and best practicable control technology (BPT) limits, and must be implemented:

- a) Prevent Exposure. The permittee must, to the extent achievable, either locate industrial materials and activities inside, or protect them with storm-resistant coverings in order to prevent exposure to rain, snow, snowmelt and runoff.
- b) Good Housekeeping.
 - (1) General Cleanup.
 - (a) The permittee must keep clean all exposed areas that are potential sources of pollutants.
 - (b) Any washwater must be directed to the sanitary sewer.
 - (c) Clean regularly all accessible work, service and storage areas to remove debris, spent sandblasting material, and any other potential pollutants.
 - (d) Implement a schedule for routine yard maintenance and cleanup. Clean trash, debris, and dirt from storage and work areas to prevent it from washing into the storm drains.
 - (e) Immediately repair or replace leaking connections, valves, pipes, hoses, and equipment that may cause contamination of stormwater.
 - (f) The industrial areas must be cleaned with sweeping and vacuuming frequently to minimize the possibility that stormwater runoff will carry sandblasting, grit or other debris into the receiving water. During wet weather, these areas must be cleaned daily. Vacuums must be equipped with appropriate filters that prevent the escape of the fume to the environment.
 - (2) Waste materials. Implement a schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers;
 - (3) Blasting and Painting Area. Implement measures to prevent spent abrasives, paint chips, and overspray from discharging into Sinclair Inlet or the storm sewer system including the following measures:
 - (a) Enclose, cover, or contain all blasting and sanding activities to the maximum extent practicable to prevent abrasives, dust, and paint chips, from reaching storm sewers or Sinclair Inlet.
 - (b) Perform spray paint operations in a manner to contain overspray and spillage, and minimize emission of particulates.
 - (c) Perform all dry-blasting operation within an enclosure with adequate dust collection. Remove all spent blast grit within 72 hours.

- (d) Prohibit all uncontained spray painting, blasting, or sanding activities over open water.
 - (e) Prohibit outside spray painting, blasting or sanding activities during windy conditions that render containment ineffective.
 - (f) Use fixed platforms with appropriate plastic or tarpaulin barriers as work surfaces and for containment when work is performed on a vessel in the water to prevent blast material or paint overspray from contacting stormwater of the receiving water. Use of such platforms will be kept to a minimum and at no time be used for extensive repair or construction (anything in excess of 25 percent of the surface area of the vessel above the waterline).
 - (g) Use plastic or tarpaulin barriers beneath the hull and between the hull and dry dock walls to contain and collect waste and spent materials.
 - (h) Clean and sweep frequently to remove debris, spent sandblasting material, and any other potential stormwater pollutants prior to exposure to rainfall and/or other sources of runoff.
 - (i) Clean paint operation work areas at the end of each work shift to prevent pollutant exposure to rainfall and/or other sources of run off. Cleaning should be accomplished using vacuums equipped with appropriate filters and/or other cleaning methods that prevent the escape of the overspray to the environment.
 - (j) Store spent abrasives under cover. Prevent any contact between process or stormwater and sandblast grit and spent abrasives.
 - (k) Spillage. Immediately clean up any spillage on areas that that have connection to stormwater system or directly to Sinclair Inlet.
 - (l) Consideration should also be given to feasible innovative procedures as appropriate to improve the effectiveness of controlling dust emissions and paint overspray.
- (4) Material Storage Areas. Implement measures to prevent or minimize the contamination of precipitation or surface runoff from the storage areas, including the following measures:
- (a) Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Store containers in a designated area, which is covered, bermed or diked, paved and impervious in order to contain leaks and spills. The secondary containment must be sloped to drain into a dead-end sump for the collection of leaks and small spills.
 - (b) For liquid wastes and hazardous liquid products, the containers must be stored on durable impervious surfaces and within bermed containment. The bermed containment must be capable of providing a volume of 110 percent of the volume contained in the largest container in the storage area.
 - (c) Place tight-fitting lids on all containers. Implement an inventory control plan to limit the presence of potentially hazardous materials onsite.

- (d) Store spent abrasives, spent and virgin sandblast grit under cover. Prevent any contact between process or stormwater and sandblast grit and spent abrasives.
 - (e) Clean regularly all storage areas to remove any potential stormwater pollutants.
 - (f) Store all scrap metals under cover. Prevent any contact between stored scrap metals and stormwater.
- (5) Engine Maintenance and Repair Areas. Implement measures to prevent or minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair including the following measures:
- (a) Conduct all maintenance and repair of vehicles and equipment in a building, or other covered impervious containment area that is sloped to prevent run-on of uncontaminated stormwater and runoff of contaminated stormwater.
 - (b) Vehicle and Equipment Storage Areas. Confine vehicles and equipment awaiting maintenance to designated areas indoors or to other covered impervious containment area that is sloped to prevent run-on of uncontaminated stormwater and runoff of contaminated stormwater.
 - (c) Minimize contaminants from these areas (e.g. drip pans under equipment, indoor storage, use of berms or dikes, or other equivalent measures.)
 - (d) Any stormwater runoff from vehicle staging and maintenance areas must be conveyed to the sanitary sewer, or to an API or CP oil and water separator followed by a basic treatment BMP, applicable filter or other equivalent oil treatment system.
 - (e) Maintain an organized inventory of materials used in the shop.
 - (f) Prevent leaks from all vehicles, parts, and equipment stored outside.
 - (g) Use drip pans or containers under parts or vehicles that drip or those that are likely to drip liquids.
- (6) Material Handling Area. Implement measures to prevent or minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels), including the following measures:
- (a) Place drip pans beneath all mounted container taps and at all potential drip and spill locations during filling and unloading of containers.
 - (b) Immediately repair, replace or isolate leaking connections, valves, pipes, and hoses, carrying wastewater, fuel, oil or other hazardous fluids.
 - (c) Mix paints and solvents in a designated area (preferably indoors or under a shed), under conditions such that no spill shall enter stormwater system or Sinclair Inlet. Use drip plans, drop cloths, tarpaulins and other protective devices in all paint mixing and solvent operations unless carried out in impervious contained and covered areas.

(7) Fueling Areas.

- (a) Conduct fueling only in designated areas. Prohibit any mobile fueling.
- (b) Design fueling islands to control spills (dead-end sump or spill control separator), and to divert collected stormwater to the sanitary sewer. Slope the concrete containment pad around the fueling island toward drains; either trench drains, catch basins and/or a dead-end sump.
- (c) Design the fueling island as a spill containment pad with a sill or berm raised to prevent the runoff of spilled liquids and to prevent run-on of stormwater from the surrounding area.
- (d) The fueling pad must be paved with Portland cement concrete, or equivalent. Asphalt is not considered an equivalent material. The fueling island must have a roof or canopy to prevent the direct entry of precipitation onto the spill containment pad. The roof or canopy should, at a minimum, cover the spill containment pad (within the grade break or fuel dispensing area) and preferably extend several additional feet to reduce the introduction of windblown rain. Convey all roof drains to storm drains outside the fueling containment area.
- (e) Stormwater collected on the fuel island containment pad must be conveyed to a sanitary sewer system.

(8) Dry dock Activities.

- (a) Use sweeping and vacuums for general dry dock clean up.
- (b) Clean the dry dock at the end of each work shift.
- (c) Thoroughly clean the dry dock prior to flooding. Cleaning must be accomplished with manual or mechanical sweeping with vacuuming to remove fine grit and debris.
- (d) All washwater must be collected and conveyed to the sanitary sewer.
- (e) All dry dock floor drainage and stormwater must be collected and conveyed to the sanitary sewer in accordance with Part I.D.
- (f) Implement procedures for cleaning up oil, grease, or fuel spills occurring on the dry dock.
- (g) Any freeze protection water that contacts the dry dock floor must be conveyed to the sanitary sewer.

c) Preventative Maintenance.

- (1) The permittee must regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater to receiving waters.
- (2) As part of the preventive maintenance program, perform timely inspection and

maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

(3) Prepare and implement a catch basin maintenance program.

d) Spill Prevention and Response Procedures.

(1) The permittee must, to the extent achievable, prevent and respond to leaks, spills and other releases. At a minimum, the permittee must have procedures that include:

(a) Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling.

(b) Response procedures that include notification of appropriate facility personnel, emergency agencies, and regulatory agencies, and procedures for stopping, containing, and cleaning up leaks, spills and other releases. Measures for cleaning up hazardous material spills or leaks must be consistent with applicable Resource Conservation and Recovery Act (RCRA) regulations at 40 CFR Part 264 and 40 CFR Part 265. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of the Pollution Prevention Team (see Part II.B.4.a); and

(c) Contact information for individuals and agencies that must be notified in the event of a leak, spill, or other release. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period, the permittee must notify the National Response Center (NRC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 as soon as the permittee has knowledge of the discharge. State or local requirements may necessitate reporting spills or discharges to local emergency, public health or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

(d) The SWPPP may reference the existence of other plans for Spill Prevention Control and Countermeasure (SPCC) developed for the facility under Section 311 of the CWA or BMP programs otherwise required by an NPDES permit for the facility, provided that the permittee keep a copy of that other plan onsite and make it available for review consistent with Part II.B.7;

e) Erosion and Sedimentation Controls.

- (1) The permittee must eliminate to the extent achievable onsite erosion and sedimentation. The permittee must implement structural and non-structural, vegetative, and/or stabilization control measures, that are necessary to achieve this requirement.
- (2) Identify areas at the facility that due to topography, land disturbance (e.g., construction, landscaping, site grading), or other factors, have a potential for soil erosion;

f) Management of Runoff.

- (1) The permittee must divert, infiltrate, reuse, contain or otherwise reduce stormwater runoff, to minimize or, to the extent achievable, eliminate pollutants in the discharges. The permittee must implement stormwater runoff management practices, e.g., permanent structural control measures that are necessary to minimize or, to the extent achievable, eliminate pollutants in the discharge. Nothing in this permit relieves the permittee of the obligation to implement additional control measures required by other Federal authorities, or by a State or local authority. Structural control measures, which involve the discharge of dredge or fill material into any receiving waters (e.g., wetlands) may require a separate permit under section 404 of the CWA before installation.

g) Employee Training.

- (1) The permittee must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance personnel), including all members of the Pollution Prevention Team. Training must cover both the specific components and scope of the SWPPP and the control measures required under this Part, including spill response, good housekeeping, material management practices, any best management practice (BMP) operation and maintenance, etc.
- (2) In addition, the employee training program, must address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

h) Unauthorized Discharges.

- (1) The permittee must eliminate non-stormwater discharges to receiving waters that are not authorized by an NPDES permit (see Part I.B.3 and II.B.4.c)(5) for SWPPP requirements regarding allowable non-stormwater discharges).

i) Maintenance of Control Measures.

- (1) The permittee must maintain all control measures, required by this permit, in effective operating condition. (Each of these control measures must be described in the SWPPP See Part II.B.4.d)). The permittee must keep documentation onsite that describes procedures and a regular schedule for preventative maintenance of all control measures and discussions of back-up practices in place should a runoff event occur while a control measure is off-line. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel trained).
- (2) If during inspections required by Part II.C.3, or any other event or observation, the permittee identifies control measures that are not operating effectively, the permittee must repair or replace them before the next anticipated storm event if possible, or as soon as practicable following that storm event. In the interim, the permittee must have back-up measures in place to ensure that the quality of the stormwater discharge is not diminished.
- (3) Storm Sewer Cleaning and Maintenance. Inspect and clean treatment BMPs, conveyance systems, and catch basins as needed, and determine whether improvements in O & M are needed. Implement the following measures:
 - (a) Promptly repair any deterioration threatening the structural integrity of the facilities. These include replacement of clean-out gates, catch basin lids, and rock in emergency spillways.
 - (b) Ensure that storm sewer capacities are not exceeded and that heavy sediment discharges to the sewer system are prevented.
 - (c) Regularly remove debris and sludge from BMPs used for peak-rate control, treatment, etc.
 - (d) Clean catch basins when the depth of deposits reaches 1/3 of the sump depth as measured from the bottom of basin to the invert of the lowest pipe into or out of the basin. However, in no case should there be less than six inches clearance from the debris surface to the invert of the lowest pipe. At a minimum, all catch basins must be cleaned annually.
 - (e) Implement a schedule for cleaning and replacing catch basin filters. At a minimum, catch basin filters must be replaced annually. Select appropriate filters for the potential pollutants in the drainage.
 - (f) Clean all stormwater treatment systems at a minimum on an annual basis.

j) Modifications to Control Measures.

- (1) The permittee must take corrective action(s) to modify the control measures as appropriate to address deficiencies found pursuant to Part II.C.4.

k) Other Controls.

- (1) The permittee must implement controls to ensure that no solid materials, including floatable debris, are discharged to receiving waters, except as authorized by a permit issued under section 404 of the CWA;
- (2) The permittee must minimize or, to the extent achievable, eliminate the generation of dust, along with off-site vehicle tracking of raw, final or waste materials, or sediments;
- (3) The permittee must minimize, or to the extent achievable, eliminate the introduction of raw, final, or waste materials to exposed areas;
- (4) The permittee must place flow velocity dissipation devices at discharge locations and along the length of any outfall channel if the flows would otherwise create erosive conditions;
- (5) The permittee must implement control measures that are necessary to avoid the likelihood of adversely impacting federally-listed species or federally-designated critical habitat under the Endangered Species Act, and to minimize effects on historic properties; and
- (6) The permittee must implement any additional control measures that are necessary to minimize or, to the extent achievable, eliminate pollutants in the stormwater discharges.

3. Inspections

The permittee must conduct the following inspections at the facility:

a) Routine Facility Inspections.

- (1) Conduct routine facility inspections on a weekly basis of all areas of the facility where industrial materials or activities are exposed to stormwater and of stormwater control measures that are required by this permit. (Each of these control measures must be described in the SWPPP). The routine facility inspections must be conducted by qualified facility personnel (see Part VI *Definitions*) with at least one member of the Pollution Prevention Team participating in the routine facility inspections. Some types of equipment, processes, and control measures will require more frequent inspections than others. If any individual stormwater monitoring sample collected pursuant to Part I.C exceeds a benchmark, the routine facility inspection following that exceedance must include an assessment of those areas and control measures that may be contributing to the elevated monitoring values.
- (2) Include the following in all weekly inspections: pressure washing areas; blasting,

sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; dry docks and surrounding areas; and general yard area.

- (3) At least once each calendar year, the routine facility inspection must be conducted during a period when a stormwater discharge is occurring.
 - (4) Inspect container storage areas regularly for corrosion, structural failure, spills, leaks, overfills, and failure of piping system. Check containers daily for leaks/spills. Replace containers, and replace and tighten bungs in drums as needed.
 - (5) Inspect vehicles/equipment for leaks.
 - (6) Routine Facility Inspection Report. The permittee must document the findings of each routine facility inspection performed and maintain this documentation onsite with the SWPPP as required in Part II.B.5. At a minimum, the routine facility inspection report must include:
 - (a) The inspection date and time;
 - (b) The names of the inspector(s);
 - (c) Weather information and a description of any discharges occurring at the time of the inspection;
 - (d) Assessment of possible causes of previous benchmark exceedances;
 - (e) Location of any control measures needing maintenance or repairs;
 - (f) Location of failed control measures that need replacement;
 - (g) Locations where additional control measures are needed;
 - (h) Any incidents of noncompliance observed; and
 - (i) A signed certification statement in accordance with Part V.E.
- b) Dry dock Flooding Inspections.
- (1) Conduct a dry dock inspection prior to flooding.
- c) Comprehensive Site Inspections.
- (1) The permittee must conduct comprehensive site inspections at least twice per year for the entire permit term. Comprehensive site inspections must be conducted by qualified personnel with at least one member of the Pollution Prevention Team participating in the comprehensive site inspections.
 - (2) Elements to Cover in a Comprehensive Site Inspection. The comprehensive site inspections must cover all relevant requirements in this permit, including the areas

identified in Part II.B.4.c) where industrial materials or activities (e.g., pressure washing, blasting and sanding, painting, material storage, engine maintenance and repair, material handling, and dry dock areas) are exposed to stormwater, stormwater controls identified in Part II.C.2, and areas where spills and leaks have occurred in the past 3 years. The inspections must also include a review of monitoring data collected in Part I.C. Inspectors must consider the results of the past year's analytical monitoring when planning and conducting inspections. Inspectors must examine the following:

- (a) Industrial materials, residue, or trash that may have or could come into contact with stormwater;
 - (b) Leaks or spills from industrial equipment, drums, tanks, and other containers;
 - (c) Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;
 - (d) Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas;
 - (e) Evidence of, or the potential for, pollutants entering the drainage system; and
 - (f) Evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, including flow dissipation measures to prevent scouring.
- (3) Stormwater control measures required by this permit (including those identified in the SWPPP) must be observed to ensure that they are functioning correctly.
- (4) When comprehensive site inspection schedules overlap with routine facility inspections required under Part II.C.3.a), the comprehensive site inspection may also be used as one of the routine inspections, as long as all components of both types of inspections are included.

4. Corrective Actions

- a) The permittee must review the control measures after identifying or discovering a deficiency to determine if further pollutant reductions are economically achievable. This review must be conducted when or if any of the following scenarios occur:
- (1) the permittee's routine facility inspection or comprehensive site inspection finds that deficiencies exist in the control measures;
 - (2) an inspection or evaluation of the SWPPP by the EPA or Ecology determines that modifications are necessary;
 - (3) any sampling results show exceedances of benchmark values (see *Table 7: Benchmark Levels for Stormwater Monitoring and Dry Dock Floor Drainage*);

- (4) an unauthorized release or discharge occurs at the facility;
 - (5) The permittee becomes aware, or EPA determines, that the discharge causes or contributes to an exceedance of applicable water quality standards; or
 - (6) construction or a change in design, operation or maintenance at the facility has a significant impact on the discharge, or potential for discharge, of pollutants from the facility.
- b) No later than 14 days following the identification or discovery of any of the above situations at the site, the permittee must document and retain with the SWPPP the date and findings of the review, and a schedule of activities the permittee will perform to identify and implement any necessary changes to control measures in response to any identified deficiencies as required in Part II.B.5. Following this documentation, if the permittee determines that changes are necessary following the review, any modifications to the control measures must be made before the next storm event if possible, or as soon as practicable following that storm event.

5. Contaminated Stormwater Collection and Treatment

- a) Within 12 months of the effective date of the permit, the permittee must identify each high-risk area at the facility (including the piers) where the stormwater has the potential to cause or contribute to an exceedance of water quality standards in the receiving waters despite implementation of mandatory BMPs in Part II.C.
- (1) The identification must include a comparison of storm water from the isolated high-risk area to storm water benchmark levels listed in *Table 7: Benchmark Levels for Stormwater Monitoring and Dry Dock Floor Drainage*.
 - (2) The identification must include areas from which the permittee is unable to sample the stormwater, but is aware that the discharge may cause or contribute to an exceedance of water quality standards. These areas must be identified based on similarities of the industrial activities, significant materials, and storm water management practices occurring in areas in which the facility is able to sample.
 - (3) The permittee must investigate the feasibility of collecting and treating stormwater from these areas. The permittee must investigate the feasibility of collecting all waters from the areas and either sending the flows to the sanitary sewer system, providing on-site treatment, or a combination thereof.
 - (4) Deliverables: Within 12 months of the effective date of the permit, the permittee must submit a report of the identification of the contaminated storm water areas and the findings on the feasibility of collection/treatment.

b) Design

(1) Within three years of the effective date of the permit, the permittee must design measures to collect and treat and/or discharge to the sanitary sewer the contaminated stormwater from the high risk areas.

(2) Deliverable: The permittee must submit a completed design report;

c) Construction

(1) Within five years of the effective date of the permit, the permittee must complete construction to collect and treat the contaminated stormwater.

(2) Deliverable: The permittee must submit a construction completion report.

D. Quality Assurance Plan (QAP)

1. The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. The permittee must submit written notice to EPA and Ecology that the Plan has been developed and implemented 180 days of the effective date of this permit. Any existing QAPs may be modified for compliance with this section.
2. The QAP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit and in explaining data anomalies when they occur.
3. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in Requirements for Quality Assurance Project Plans (EPA/QA/R-5) and Guidance for Quality Assurance Project Plans (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents.
4. At a minimum, the QAP must include the following:
 - a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
 - b) Map(s) indicating the location of each sampling point.
 - c) Qualification and training of personnel.
 - d) Name(s), address(es) and telephone number(s) of the laboratories used by or proposed to be used by the permittee.

5. The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.
6. Copies of the QAP must be kept on site and made available to EPA and Ecology upon request.

E. Effluent Mixing Study

1. General Requirements

- a) The permittee must determine the degree of effluent and receiving water mixing which occurs within the mixing zones for the dry dock, steam generation plant, and storm water outfalls. The degree of mixing must be determined during critical conditions, as defined in WAC 173-201A-020 Definitions-“Critical Condition,” or as close to critical conditions as reasonably possible.
- b) The permittee must use the *Guidance for Conducting Mixing Zone Analyses* (Ecology, 1996) to establish the critical condition scenarios. The permittee must measure the dilution ratio in the field with dye using study protocols specified in the Guidance, section 5.0 “Conducting a Dye Study,” as well as other protocols listed in subpart C Protocols. The permittee may use mixing models as an acceptable alternative or adjunct to a dye study if:
 - (1) The critical ambient conditions necessary for model input are known or will be established with field studies; and
 - (2) If the diffuser is visually inspected for integrity or has been recently tested for performance by the use of tracers.
- c) The permittee must consult the *Guidance* mentioned above when choosing the appropriate model.
- d) Ecology requires the use of models if critical condition scenarios that need to be examined are quite different from the set of conditions present during the dye study.
- e) The permittee may need to validate (and possibly calibrate) a model. The permittee must conduct validation/calibration in accordance with the Guidance mentioned above - in particular subsection 5.2 “Quantify Dilution.” The permittee must apply the resultant dilution ratios for acute and chronic boundaries in accordance with directions found in Ecology’s Permit Writer’s Manual (Ecology publication 92-109, most current version) – in particular Chapter VI.
- f) The permittee must submit a Plan of Study to Ecology for review within 12 months of the effective date of the permit, prior to initiation of the effluent mixing study.

2. Reporting Requirements

- a) The permittee must include the results of the effluent mixing study in the Effluent Mixing Report, and must submit it to Ecology and EPA within 30 months of the effective date of the permit.
- b) If the permittee has information on the background physical conditions or background concentration of chemical substances (for which there are criteria in Chapter 173-201A WAC) in the receiving water, the permittee must submit this information to EPA and Ecology as part of the Effluent Mixing Report.
- c) The permittee must use some method of fixing and reporting the location of the outfall and mixing zone boundaries (i.e. Global Positioning System (GPS) coordinates). The method of fixing station location and the actual station locations must be identified in the report.

3. Protocols

The permittee must determine the dilution ratio using protocols outlined in the following references, approved modifications thereof, or by another method approved by Ecology and EPA:

-Akar, P.J. and G.H. Jirka, *Cormix2: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Multiport Diffuser Discharges*, USEPA Environmental Research Laboratory, Athens, GA, Draft, July 1990.

-Baumgartner, D.J., W.E. Frick, P.J.W. Roberts, and C.A. Bodeen, *Dilution Models for Effluent Discharges*, USEPA, Pacific Ecosystems Branch, Newport, OR, 1993.

-Doneker, R.L. and G.H. Jirka, *Cormix1: An Expert System for Hydrodynamic Mixing Zone Analysis of Conventional and Toxic Submerged Single Port Discharges*, USEPA, Environmental Research Laboratory, Athens, GA, EPA/600-3-90/012, 1990.

-Ecology, *Permit Writer's Manual*, Water Quality Program, Department of Ecology, Olympia WA 98504, July, 1994, including most current addenda.

-Ecology, *Guidance for Conducting Mixing Zone Analyses*, Permit Writer's Manual, (Appendix 6.1), Water Quality Program, Department of Ecology, Olympia WA 98504, October 1996.

-Kilpatrick, F.A., and E.D. Cobb, Measurement of Discharge Using Tracers, Chapter A16, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics*, USGS, U.S. Department of the Interior, Reston, VA 1985.

-Wilson, J.F., E.D. Cobb, and F.A. Kilpatrick, Fluorometric Procedures for Dye Tracing, Chapter A12, *Techniques of Water-Resources Investigations of the USGS, Book 3, Application of Hydraulics*, USGS, U.S. Department of the Interior, Reston, VA 1986.

III. General Monitoring, Recording and Reporting Requirements

A. Representative Sampling (Routine and Non-Routine Discharges)

1. Samples and measurements must be representative of the volume and nature of the monitored discharge.
2. In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.A. of this permit that are likely to be affected by the discharge.
3. The permittee must collect such additional samples as soon as the spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with paragraph III.C (“Monitoring Procedures”). The permittee must report all additional monitoring in accordance with paragraph III.D (“Additional Monitoring by permittee”).

B. Reporting of Monitoring Results

The permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) form (EPA No. 3320-1) or equivalent. The permittee must submit reports monthly, postmarked by the 15th day of the following month. The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of Part V.E. of this permit (“Signatory Requirements”). The permittee must submit the legible originals of these documents to the Director, Office of Compliance and Enforcement, with copies to Ecology at the following addresses:

US EPA Region 10
Attn: PCS Data Entry Team
1200 Sixth Avenue, Suite 900
OCE-133
Seattle, Washington 98101

Washington State Department of Ecology
Northwest Regional Office
Attn: Jeanne Tran, Water Quality Program
3190 – 160th Avenue SE
Bellevue, Washington 98008-5452

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified in this permit or approved by EPA as an alternate test procedure under 40 CFR 136.5.

D. Additional Monitoring by Permittee

1. If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.
2. Upon request by EPA, the permittee must submit results of any other sampling, regardless of the test method used.

E. Records Contents

Records of monitoring information must include:

- a) the date, exact place, and time of sampling or measurements;
- b) the name(s) of the individual(s) who performed the sampling or measurements;
- c) the date(s) analyses were performed;
- d) the names of the individual(s) who performed the analyses;
- e) the analytical techniques or methods used; and
- f) the results of such analyses.

F. Retention of Records

The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of EPA or Ecology at any time.

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:
 - a) any noncompliance that may endanger health or the environment;
 - b) any unanticipated bypass that exceeds any effluent limitation in the permit (See Part IV.F., "Bypass of Treatment Facilities");

- c) any upset that exceeds any effluent limitation in the permit (See Part IV.G., “Upset Conditions”); or
 - d) any violation of a maximum daily discharge limitation for applicable pollutants identified by footnote 1 of *Table 1: Dry Docks 1 – 5 (Outfalls 018A, 018B, 096, AAA, and BBB) Effluent Limits*, *Table 2: Dry Dock 6 (Outfall 019) Effluent Limits*, and *Table 5: Stormwater Monitoring Requirements and Final Effluent Limitations*.
2. The permittee must also provide a written submission within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1 above. The written submission must contain:
- a) a description of the noncompliance and its cause;
 - b) the period of noncompliance, including exact dates and times;
 - c) the estimated time noncompliance is expected to continue if it has not been corrected; and
 - d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.
4. Reports must be submitted to the addresses in Part III.B (“Reporting of Monitoring Results”).

H. Other Noncompliance Reporting

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B (“Reporting of Monitoring Results”) are submitted. The reports must contain the information listed in Part III.G of this permit (“Twenty-four Hour Notice of Noncompliance Reporting”).

I. Changes in Discharge of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds and Ecology as soon as it knows, or has reason to believe:

- 1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge may reasonably be expected to exceed the highest of the following “notification levels”:

- a) One hundred micrograms per liter (100 µg/L);
 - b) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - c) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - d) The level established by EPA in accordance with 40 CFR 122.44(f).
2. That any activity has occurred or will occur that would result in any discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in the permit, if that discharge may reasonably be expected to exceed the highest of the following “notification levels”:
- a) Five hundred micrograms per liter (500 µg/L);
 - b) One milligram per liter (1 mg/L) for antimony;
 - c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - d) The level established by EPA in accordance with 40 CFR 122.44(f).
3. The permittee must submit the notification to Office of Water and Watersheds at the following address:

US EPA Region 10
 Attn: NPDES Permits Unit Manager
 1200 Sixth Avenue, Suite 900
 OWW-130
 Seattle, Washington 98101

J. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

IV. Compliance Responsibilities

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the CWA and is grounds for enforcement action, for permit

termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

B. Penalties for Violations of Permit Conditions

1. **Civil and Administrative Penalties.** Pursuant to 40 CFR Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the CWA and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$32,500 per day for each violation).
2. **Administrative Penalties.** Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the CWA and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$32,500). Pursuant to 40 CFR 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the CWA and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently \$11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$157,500).
3. **Criminal Penalties:**
 - a) **Negligent Violations.** The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both.
 - b) **Knowing Violations.** Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of

not more than 6 years, or both.

- c) **Knowing Endangerment.** Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- d) **False Statements.** The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The CWA further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

C. Need To Halt or Reduce Activity not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and

maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this Part.
2. Notice.
 - a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.
 - b) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Part III.G (“Twenty-four Hour Notice of Noncompliance Reporting”).
3. Prohibition of bypass.
 - a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the permittee for a bypass, unless:
 - (1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under paragraph 2 of this Part.
 - b) The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

G. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b) The permitted facility was at the time being properly operated;
 - c) The permittee submitted notice of the upset as required under Part III.G, “Twenty-four Hour Notice of Noncompliance Reporting;” and
 - d) The permittee complied with any remedial measures required under Part IV.D, “Duty to Mitigate.”
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants

The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

I. Planned Changes

The permittee must give written notice to the Director of the Office of Water and Watersheds as specified in Part III.I.3. and Ecology as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements under Part III.I

(“Changes in Discharge of Toxic Substances”).

J. Anticipated Noncompliance

The permittee must give written advance notice to the Director of the Office of Compliance and Enforcement and Ecology of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

V. General Provisions

A. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 122.62, 122.64, or 124.5. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR 122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Duty to Provide Information

The permittee must furnish to EPA and Ecology, within the time specified in the request, any information that EPA or Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to EPA or Ecology, upon request, copies of records required to be kept by this permit.

D. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to EPA or Ecology, it must promptly submit the omitted facts or corrected information in writing.

E. Signatory Requirements

All applications, reports or information submitted to EPA and Ecology must be signed and certified as follows.

1. All permit applications must be signed as follows:
 - a) For a corporation: by a responsible corporate officer.
 - b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
 - c) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by EPA or Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a) The authorization is made in writing by a person described above;
 - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
 - c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement and Ecology.
3. Changes to authorization. If an authorization under Part V.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.E.2. must be submitted to the Director of the Office of Compliance and Enforcement and Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this Part must make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

F. Availability of Reports

In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words “confidential business information” on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry

The permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10; Ecology; or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of federal, tribal, state or local laws or regulations.

I. Transfers

This permit is not transferable to any person except after written notice to the Director of the Office of Water and Watersheds as specified in part III.I.3. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory).

J. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

VI. Definitions

1. “Act” means the Clean Water Act.
2. “Acute Toxic Unit” (“TUa”) is a measure of acute toxicity. TUa is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., $100/\text{LC}_{50}$).
3. “Administrator” means the Administrator of the EPA, or an authorized representative.
4. “AKART” means “all known, available, and reasonable methods for prevention, control and treatment” in accordance with the State of Washington Water Quality Standards Chapter 173-201A.
5. “Average monthly discharge limitation” means the highest allowable average of “daily discharges” over a calendar month, calculated as the sum of all “daily discharges” measured during a calendar month divided by the number of “daily discharges” measured during that month.
6. “Best Management Practices” (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
7. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility.
8. “Chronic toxic unit” (“TUc”) is a measure of chronic toxicity. TUc is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., $100/\text{NOEC}$).
9. “Composite” - see “24-hour composite”.
10. “Daily discharge” means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the “daily discharge” is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as

the average measurement of the pollutant over the day.

11. “Director of the Office of Compliance and Enforcement” means the Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.
12. “Director of the Office of Water and Watersheds” means the Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.
13. “Geometric Mean” means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
14. “Grab” sample is an individual sample collected over a period of time not exceeding 15 minutes.
15. “Inhibition concentration”, IC, is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).
16. “Interim Minimum Level (IML)” is used when a method-specific “Minimum Level (ML)” has not been published by EPA. The IML is equal to 3.18 times the method-specified “Method Detection Limit (MDL)”. The IML for non-metals is rounded to the nearest multiple of 2, 5, 10, 20, 50.
17. “LC50” means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.
18. “Maximum daily discharge limitation” means the highest allowable “daily discharge.”
19. “Method Detection Limit (MDL)” means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.
20. “Minimum Level (ML)” means the concentration at which the entire analytical system must give a recognizable signal and an acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.
21. “NOEC” means no observed effect concentration. The NOEC is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic toxicity test [full life-cycle or partial life-cycle (short term) test], that causes no observable adverse effects on the test organisms (i.e., the highest concentration of effluent in which the values for the observed responses are not statistically significantly different from the controls).

22. “NPDES” means National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits . . . under sections 307, 402, 318, and 405 of the CWA.
23. “QA/QC” means quality assurance/quality control.
24. “Qualified Personnel” are those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at your facility, and who can also evaluate the effectiveness of BMPs
25. “Regional Administrator” means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.
26. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
27. “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
28. “24-hour composite” sample means a combination of at least 8 discrete sample aliquots of at least 100 milliliters, collected over periodic intervals from the same location, during the operating hours of a facility over a 24 hour period. The composite must be flow proportional. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

VII. Acronyms

AKART	All known, available, and reasonable methods of prevention, control, and treatment
AML	Average monthly limit
BMP	Best management practices
BOD5	Five-day biochemical oxygen demand
°C	Degrees Celsius
CFR	Code of Federal Regulations
CWA	Clean Water Act
DMR	Discharge monitoring report
Ecology	Washington State Department of Ecology
EC	Effect concentration

EPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit
Gpd	Gallons per day
IC	Inhibition Concentration
LC	Lethal Concentration
lbs/day	Pounds per day
MDL	Maximum daily limit or method detection limit
Mgd	Million gallons per day
mg/L	Milligrams per liter
ml	Milliliters
NPDES	National Pollutant Discharge Elimination System
NOEC	No observed effect concentration
NOAEC	No observed adverse effect concentration
NTU	Nephelometric Turbidity Unit
O&M	Operation and maintenance
POTW	Publicly owned treatment works
PSNS	Puget Sound Naval Shipyard
PWCS	Process Water Control System
QAP	Quality Assurance Plan
OWTS	Oily Water Treatment System
PMSD	Percent minimum significant difference
RP	Reasonable potential
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total maximum daily load
TSS	Total suspended solids
TU	Toxicity Unit
WAC	Washington Administrative Code
WET	Whole Effluent Toxicity
WQBEL	Water Quality-Based Effluent Limit
µg/L	Micrograms per liter

Appendix A Stormwater Outfalls

Numbered Stormwater Outfalls						
NPDES Outfall Number	Latitude	Longitude		NPDES Outfall Number	Latitude	Longitude
001	47° 33' 40"	122° 37' 31"		046	47° 33' 36"	122° 37' 54"
002	47° 33' 36"	122° 37' 37"		047	47° 33' 37"	122° 37' 56"
003	47° 33' 36"	122° 37' 47"		048	47° 33' 36"	122° 38' 2"
004	47° 33' 39"	122° 37' 49"		049	47° 33' 36"	122° 38' 3"
005	47° 33' 41"	122° 37' 52"		050	47° 33' 36"	122° 38' 4"
006	47° 33' 39"	122° 37' 54"		051	47° 33' 36"	122° 38' 3"
007	47° 33' 36"	122° 38' 2"		052	47° 33' 36"	122° 38' 5"
008	47° 33' 35"	122° 38' 11"		053	47° 33' 36"	122° 38' 6"
009	47° 33' 22"	122° 38' 22"		054	47° 33' 30"	122° 38' 12"
010	47° 33' 21"	122° 38' 31"		055	47° 33' 30"	122° 38' 20"
011	47° 33' 21"	122° 38' 39"		056	47° 33' 29"	122° 38' 20"
012	47° 33' 21"	122° 38' 41"		057	47° 33' 22"	122° 38' 27"
013	47° 33' 21"	122° 38' 58"		058	47° 33' 14"	122° 38' 32"
014	47° 33' 21"	122° 39' 2"		059	47° 33' 13"	122° 38' 32"
015	47° 33' 15"	122° 39' 11"		060	47° 33' 12"	122° 38' 32"
017	47° 33' 26"	122° 37' 48"		061	47° 33' 11"	122° 38' 39"
018	47° 33' 36"	122° 38' 10"		062	47° 33' 12"	122° 38' 39"
019	47° 33' 11"	122° 38' 33"		063	47° 33' 13"	122° 38' 39"
022	47° 33' 15"	122° 39' 17"		064	47° 33' 14"	122° 38' 39"
023	47° 33' 37"	122° 37' 36"		065	47° 33' 15"	122° 38' 39"
024	47° 33' 37"	122° 37' 37"		066	47° 33' 16"	122° 38' 39"
025	47° 33' 36"	122° 37' 44"		067	47° 33' 17"	122° 38' 39"
026	47° 33' 40"	122° 37'54"		068	47° 33' 17"	122° 38' 39"
027	47° 33' 37"	122° 37'57"		069	47° 33' 18"	122° 38' 39"
028	47° 33' 37"	122° 38'0"		070	47° 33' 19"	122° 38' 39"
029	47° 33' 30"	122° 38'19"		071	47° 33' 20"	122° 38' 39"
030	47° 33' 28"	122° 38' 20"		072	47° 33' 21"	122° 38' 40"
031	47° 33' 22"	122° 38' 24"		073	47° 33' 21"	122° 38' 42"
032	47° 33' 22"	122° 38' 26"		074	47° 33' 21"	122° 38' 42"
033	47° 33' 21"	122° 38' 30"		075	47° 33' 21"	122° 38' 43"
034	47° 33' 21"	122° 38' 50"		076	47° 33' 21"	122° 38' 45"
035	47° 33' 21"	122° 38' 52"		077	47° 33' 21"	122° 38' 46"
036	47° 33' 21"	122° 38' 54"		078	47° 33' 21"	122° 38' 47"
037	47° 33' 21"	122° 38' 56"		079	47° 33' 21"	122° 38' 47"
038	47° 33' 21"	122° 38' 59"		080	47° 33' 21"	122° 38' 48"
039	47° 33' 21"	122° 39' 1"		082	47° 33' 21"	122° 39' 9"
040	47° 33' 21"	122° 39' 5"		083	47° 33' 20"	122° 39' 10"
041	47° 33' 21"	122° 39' 8"		084	47° 33' 19"	122° 39' 10"
042	47° 33' 39"	122° 37' 50"		085	47° 33' 17"	122° 39' 10"
043	47° 33' 39"	122° 37' 52"		087	47° 33' 15"	122° 39' 15"
044	47° 33' 39"	122° 37' 54"		088	47° 33' 15"	122° 39' 16"
045	47° 33' 38"	122° 37' 54"		089	47° 33' 15"	122° 39' 18"

Numbered Stormwater Outfalls (continued)						
NPDES Outfall Number	Latitude	Longitude		NPDES Outfall Number	Latitude	Longitude
090	47° 33' 15"	122° 39' 19"		094	47° 33' 8"	122° 39' 38"
091	47° 33' 15"	122° 39' 20"		095	47° 33' 36"	122° 37' 40"
092	47° 33' 15"	122° 39' 22"		096	47° 33' 37"	122° 37' 56"
093	47° 33' 13"	122° 39' 27"		097	47° 33' 39"	122° 37' 50"